

located in a housing (1) of the power tool, the quick-action locking device comprising a locking spindle (4) axially displaceable in the hollow spindle (2) of the electrical power tool; a resilient member (5) for axially restraining the locking spindle (4); a locking flange (7) cooperating with the locking spindle (4) for securing the working tool (3) to the spindle (2) for joint rotation therewith; and a locking lever (6) provided at an end of the locking spindle (4) remote from the working tool (3) and pivotable about a pivot axis (9) between a locking position, in which the working tool (3) is secured to the spindle (2), and an exchange position in which the working tool (3) can be replaced, the locking lever (6) having a slider (8) for applying a force to the locking spindle (4) for displacing the locking spindle (4) against a biasing force of the resilient member (5) upon a pivotal movement of the locking lever (6) from the locking position to the exchange position, the slider (8) having a contact region engageable with a contact surface (11) provided at the end of the locking spindle (4) remote from the working tool (3),

wherein the contact surface of the locking spindle (4) has an extent (K) corresponding to a distance (a) between a point of contact of the contact region

of the slider (8) with the contact surface (11) of the spindle (4) in the locking position of the lever (6), and the pivot axis (9) of the locking lever (6), multiplied by $\sin(\alpha)$ of an angle (α) formed by a line passing through the contact point and the pivot axis (9) of the locking lever (6), with a longitudinal axis of the spindle (4); and

wherein in the exchange position of the locking lever (6), the passing line forms with a longitudinal axis of the locking spindle (4) and end angle (β) that amounts from about 5° to about 30° .

11. A quick-action locking device according to claim 10, wherein the angle (α), which the passing line forms with the longitudinal axis of the locking spindle (4), amounts to from 30° to 120° .

12. A quick-action locking device according to claim 11, wherein the angle (α) is equal to about 80° .


13. A quick-action locking device according to claim 12, wherein the end angle (β) amounts to about 10° .

14. A quick-action locking device according to claim 10, wherein the slider (8) is formed as an annular support member having a predetermined radius (R) and an axis of which extends parallel to the pivot axis (9).

15. A quick-action locking device according to claim 14, wherein the predetermined radius (R) corresponds to .2 - .6 of the radial distance (a) between the contact point and the pivot axis (9).

16. A quick-action locking device according to claim 15, wherein the predetermined radius (R) amounts to about .4 of the distance (a) between the contact point and the pivot axis (9).

17. An electrical power tool, comprising a housing (1); a hollow motor-driven spindle (2) located in the housing (1); a working tool (3); and a quick-action locking device for securing the working tool (3) to the spindle (2), the quick-action locking device having comprising a locking spindle (4) axially displaceable in the hollow spindle (2) of the electrical power tool; a resilient member (5) for axially restraining the locking spindle (4); a locking flange (7) cooperating with the locking spindle (4) for securing the working tool (3) to the



spindle (2) for joint rotation therewith; and a locking lever (6) provided at an end of the locking spindle (4) remote from the working tool (3) and pivotable about a pivot axis (9) between a locking position, in which the working tool (3) is secured to the spindle (2), and an exchange position in which the working tool (3) can be replaced, the locking lever (6) having a slider (8) for applying a force to the locking spindle (4) for displacing the locking spindle (4) against a biasing force of the resilient member (5) upon a pivotal movement of the locking lever (6) from the locking position to the exchange position, the slider (8) having a contact region engageable with a contact surface (11) provided at the end of the locking spindle (4) remote from the working tool (3),

wherein the contact surface of the locking spindle (4) has an extent (k) corresponding to a distance (a) between a point of contact of the contact region of the slider (8) with the contact surface (11) of the spindle (4) in the locking position of the lever (6) and the pivot axis (9) of the locking lever (6), multiplied by $\sin(\alpha)$ of angle (α) formed by a line passing through the contact point and the pivot axis (9) of the locking lever (6), with a longitudinal axis of the spindle (4); and